

## PATENT CLAIMS

1. A method for processing at least one signal (S(A)), reproducing a physical output quantity (A), of an industrial installation (4), wherein an output signal (S(Z)) reproducing a derived physical target quantity (Z) is determined from the signal (S(A)), wherein an automatic conversion of the unit of the output quantity (A) into a target unit (ZE) of the target quantity (Z) is carried out.
2. The method as claimed in claim 1, in which the automatic conversion into the target unit (ZE) is performed with the aid of a table in which the conversion parameters necessary for converting the units are deposited.
3. The method as claimed in claim 2, in which the units in the table are broken down into basic SI units.
4. The method as claimed in claim 3, in which the various units are arranged underneath one another in a column and in the rows for the respective unit the conversion parameters for the break-down into basic SI units are listed column by column.
5. The method as claimed in claim 3 or 4, in which the break-down into basic SI units is effected with the aid of the formula
$$x [E] = (y[SI] * f * b^e + c)^{\pi[SI]}.$$
6. The method as claimed in one of claims 2 to 5, in which, in the case of a calculation formula for determining the target quantity (Z), the units of the physical quantities included in the calculation formula are in each case converted into basic SI units and the target quantity (Z) is specified in the desired target unit (ZE).

7. The method as claimed in one of the preceding claims, in which a calculation formula is input by the operating personnel for determining the target quantity (Z).
8. The method as claimed in claim 7, in which the calculation formula is automatically subjected to a plausibility check by means of the target unit (ZE) determined.
9. The method as claimed in one of the preceding claims, in which the target quantity (Z) is displayed in accordance with a predetermined standard.
10. The method as claimed in one of the preceding claims, in which the signal (S(A)) is read out via a mobile diagnostic and evaluating system (2) in the active operation of an industrial process and the target quantity (Z) is generated with the aid of the diagnostic system.